SY Sprinkler Flex. Hose

Email address: psy977@hanafos.com
Website: www.hosesyflex.com

SY Tube is flexible, specially designed with the special characteristics of the Hinged Center (Middle) bracket as well as 135 mm long Sprinkler Nozzle Adaptor (Reducer) with grooved lines in the body.

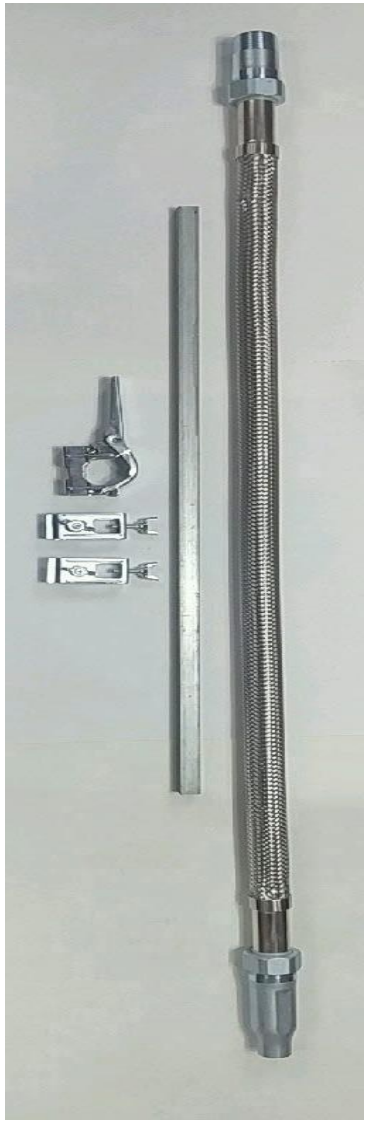
It can easily be installed using various methods in constricted spaces. It can also be reinstalled when change in design occurs.

Installation of this product is more time-efficient and affordable.

With FM, VdS, and UL Approvals

Sized 700 mm to 1820 mm
Sprinkler Nozzle 10 mm, 15 mm, 20 mm
BSP and NPT thread

Sprinkler Flexible Dropper



SYB 27 Type (DN 25) with FM Approval (Braided type)	SYB 27 Type (DN 25) with UL Approval (Un-Braided type)	SYB 27 Type (DN 25) with VdS Approval (Braided type)	Outlet Female Threads (Sprinkler Nozzle Adapter Diameter)
31 inches	700 mm length	700 mm length	NPT & BSP female Taper thread. for 10 mm, 15 mm, 20 mm threads
36 inches	1,000 mm length	1,000 mm length	
48 inches	1,200 mm length	1,200 mm length	
60 inches	1,500 mm length	1,500 mm length	
72 inches	1,800 mm length	1,800 mm length	

(Total Length Tolerance : +/- 30 mm)

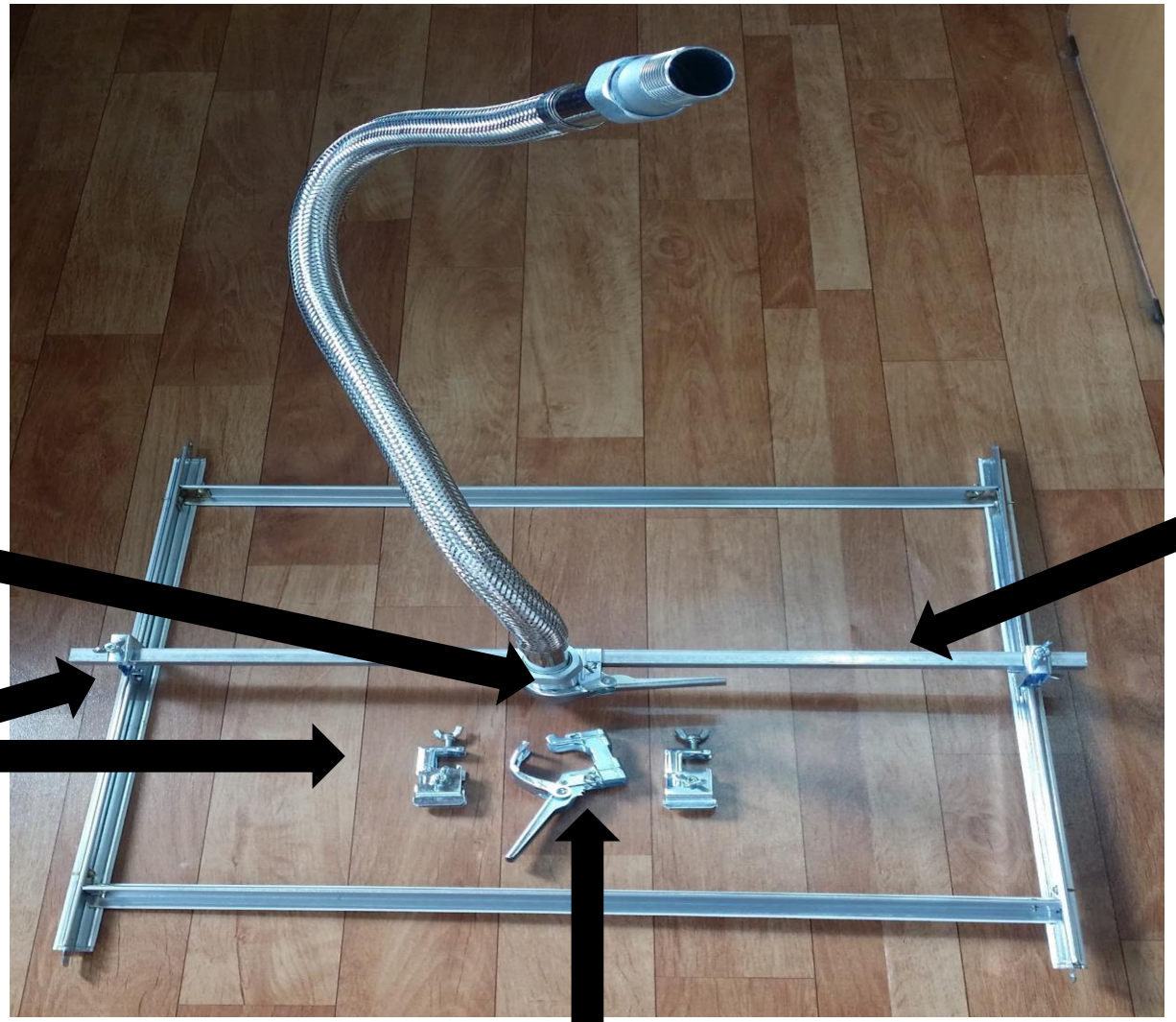
Braided Type: Components and Material

1) 1 piece, Flexible tube (SUS 304)
2) 1 piece, Nipple (SS 41 in Zinc plated)
3) 2 pieces, Slip Nuts (SS 41 in Zinc plated)
4) 1 piece, Sprinkler Nozzle Adapter (Reducer) in 135 mm length with grooved lines in the body (SS 41 in Zinc plated)
5) 2 pieces, Isolated Ring (Nylon 66)
6) 1 unit, Braid Tube (SUS 304)

The Kits

7) 1 piece, Hinged Center (Middle) Bracket (Reducer Clamp)
8) 2 pieces, End Brackets in 60 mm length (Ceiling Grid Clamp) with Butterfly Screw
9) Square bar in 1 meter length or 660 mm length (15 x 15 x 0.8 T x 1 Meter or 660 m length)

Sprinkler Nozzle Adaptor (Reducer) in 135 mm length with grooved lines in the body



Square Bar in 660 mm length

End Bracket in 60 mm length with Butterfly Screws

Hinged Center (Middle) Bracket

Technical Data

-- Usage: Commercial Building Office
-- Temperature Rating : 225 ˚F
-- Working Pressure : Maximum working pressure : 200 psi
Minimum working pressure : 175 psi
Our samples were hydrostatically pressured to 700 psi (4826 kPa) after completing 50,000 cycles (tested by FM).
-- K factor : with nominal discharge coefficients (K-factor) of 5.6 and 8.0 gal/min/(psi) respectively
-- Connection : To branch line (Inlet) : 1" NPT & BSP male thread
To Sprinkler Head (Outlet) : 10 mm or 15 mm or 20 mm NPT & BSP female taper thread
-- Bend Radius
Maximum Bend Radius of Flexible Tube : 3 inches (Do not bend within 2 ½ inches of connection nut)
Minimum Bend Radius of Flexible Tube : 8 inches
-- Each Flexible Drops gets tested by the Hydrostatic & Pressure test at 30 psi (by VdS) before packing
-- Friction Loss Data (Average Equivalent Length (in feet) 1" Schedule 40 Pipe)

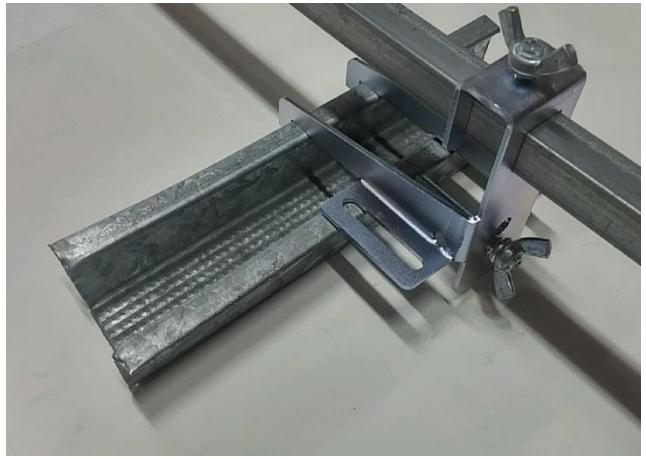
Model Size	Model Size	15 mm Sprinkler Nozzle		20 mm Sprinkler Nozzle		Max. Number of 90 Degree Bends (8 in. Bending Radius)
		Hose Assembly Length, ft (m)	Equivalent Length of 1 in. Schedule 40 PIPE, ft (m)	Hose Assembly Length, ft (m)	Equivalent Length of 1 in. Schedule 40 PIPE, ft (m)	
700 MM	700 MM	2 (0.6)	19.1 (5.8)	2 (0.6)	15.6 (4.7)	1
1000 MM	1000 MM	3 (0.91)	27.7 (8.4)	3 (0.91)	24.9 (7.6)	1
1200 MM	1200 MM	4 (1.2)	47.2 (14.4)	4 (1.2)	43.2 (13.2)	3
1500 MM	1500 MM	5 (1.5)	48.3 (14.7)	5 (1.5)	45.6 (13.9)	3
1800 MM	1800 MM	6 (1.8)	61.4 (18.7)	6 (1.8)	59.7 (18.2)	4

Accessory Parts

90 degree Elbow
(170 mm length)

110 mm length
End Bracket

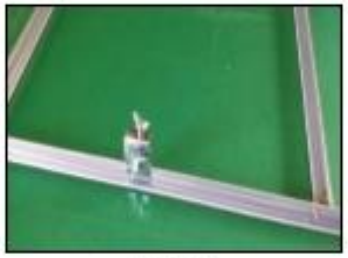
Hat Channel Bracket



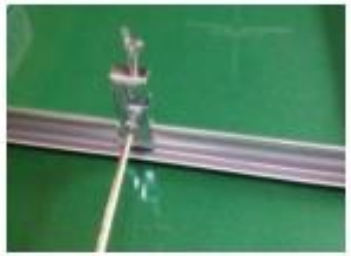
Assemble Hat channel Bracket
to Connecting bar

Installation Manual (SY Flex)

- **END BRACKET Installation**
  - **Install the provided end brackets onto T-Bar at the preferred location (1)**
  - **Firmly tighten screw bolts on the end brackets by hand or with a screwdriver (2,3)**



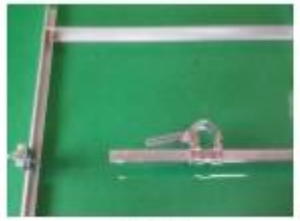
(PIC01)



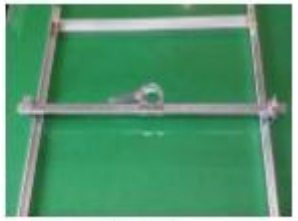
(PIC02)

(PIC03)

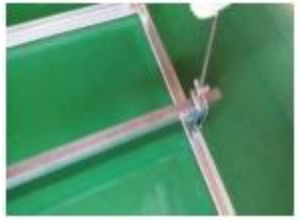
- **SQUARE BAR Installation**
  - **Insert the supplied square bar into the hole of the middle bracket (4)**
  - **Insert the square bar into the hole of the facing end brackets (5)**
  - **Tighten the screw bolts of the end brackets by hand or with a screwdriver (6,7)**



(PIC04)



(PIC05)



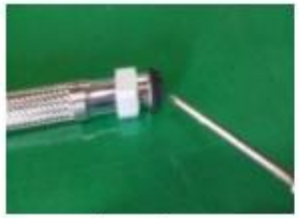
(PIC06)

(PIC07)

- **Nipple Installation**
  - Separate the provided nipple from sprinkler flexible hose (8)
  - Apply Teflon tape or pipe sealant to the 1” thread of the nipple per NFPA guidelines
  - Attach the nipple to the water branch line.
  - Tighten the nipple using a wrench to ensure a leak proof connection (9)
- **Jointing the Hose and Nipple**
  - Check the sp-packing (gasket) inside the nut on the end of the sprinkler flexible hose for water fastness (10)
  - Connect the sprinkler hose to the nipple using the nut on the hose
  - Tighten the nut using a wrench (11)

(PIC08)

(PIC09)



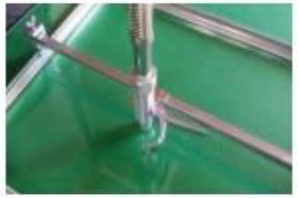
(PIC10)

(PIC11)

- **Positioning Sprinkler Head**
  - Determine the installation location of the sprinkler head
  - Bend the sprinkler flexible hose to allow for placement of the sprinkler head

- Open the Middle Bracket. To open, move the fixed pin down to position ① and the handle to position ② (12)
- Mount the Middle Bracket on the square bar and position it at the placement of the sprinkler head
- Insert the reducer that is connect to the sprinkler flexible hose into the Middle Bracket (13)
- Insert the cover of the Middle Bracket into the loop and pull the handle to the end following the arrow in picture 14. Fasten the reducer.

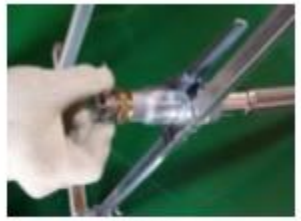
(PIC12)


(PIC13)

(PIC14)

Installation of the Sprinkler Head

- Apply Teflon tape or pipe sealant to the thread of the sprinkler head
- Connect the sprinkler head to the reducer (15)


(PIC15)

- INSPECTION after installation
  - Following the installation of the system, test for any leakages per NFPA Guidelines

Prüfprotokoll / *Test Protocol*

Auftragsnummer / *Order number:*	132744-AU01	Anlage Nr. / *Annex no.*	1 / 14
Auftraggeber / *Client:*	SY Flex Co.	Prüfbericht Nr. / *Test Report no.*	WAL 14022.02.05.14
Bauteil / *Component:*	Sprinkler-Deckenadapter	Zulässiger Druck / *Allowable pressure:*	16 bar
Typ / Nennweite / *Type / Nominal Size:*	"SYB"		

Prüfgrundlagen	*Test basis*
• Prüfvereinbarung Nr. WAL 09/2009 über die Prüfung einer flexiblen Schlauchauswinkelung für den Einsatz in abgehängten Decken	• *Examination agreement No. WAL 09/2009 about the examination of a flexible angle tube for the use in suspendent ceilings*

Prüfung der Eignung der Halterungen / *Check of the suitability of the brackets*

Durchführung	*Procedure*
entsprechend Prüfgrundlage Die Endhalterungen werden an den Tragprofilen der Deckensysteme montiert und die Eignung dieser Verbindung begutachtet. Abweichungen / Ergänzungen zur Prüfgrundlage:	*according to test basis* *The end-brackets are fitted to the supporting profils of the ceiling systems and the suitability of this combination is examined.* *Variations / additions to test basis:*
Alternativ: Überprüfung der Eignung durch die technischen Unterlagen/ *Alternative: Verification of the suitability by the technical documentation*	

Umgebung		*Environment*
Prüfraum	Gebäude/ *building* B, Raum/ *room* 112	*Test room*
Raumtemperatur	Nicht anwendbar / *non-applicable*	*Ambient temperature*
Luftfeuchte	Nicht anwendbar / *non-applicable*	*Ambient humidity*

Messmittel	*Measuring equipment*
Nicht anwendbar	*Non applicable*

Anforderungen	*Requirements*
Die Verbindung Halterung-Deckensystem muss sicher sein.	*The connection bracket-ceiling system must be safe.*

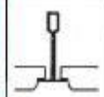
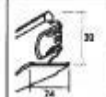
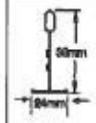
Beobachtungen	*Observations*
Die Verbindungen sind sicher (siehe unten)	*The connections are safe (see below)*
Bemerkungen	*Notes*

Halterung für die Deckensysteme: Odenwald, Richter, Lafarge, Ecophon T24, AMF T24/28, Rigips und Armstrong Suprafine)/
Bracket for ceiling systems: Odenwald, Richter, Lafarge, Ecophon T24, AMF T24/28, Rigips und Armstrong Suprafine)

Zeichnungs-Nr./ drawing no.:SY27-EB-A

Bewertungsschlüssel						Key code	
erfüllt	+ / ankreuzen	nicht erfüllt	- / leer lassen	*fulfilled*	+ / tick in	*not fulfilled*	- / empty

Die Konstruktionen der Tragprofile sind nahezu identisch/ *the constructions of the supporting profils are almost identical*

Odenwald	Richter	Lafarge	Rigips	AMF	Ecophon	Armstrong
						

Die Verbindungen Halterung-Tragprofil sind kraftschlüssig und sicher (siehe Beispiele unten)/
The connections bracket-supporting profil are friction-locked and safe (see examples below)

Halterung für die Deckensystem: AMF BR50-3600/
Bracket for ceiling system: AMF BR50-3600

Zeichnungs-Nr./ drawing no.:SY27-EB-4-A

Die Verbindung Halterung-Tragprofil ist kraftschlüssig und sicher (siehe Beispiele unten)/
The connection bracket-supporting profil is friction-locked and safe (see examples below)

Bewertungsschlüssel						Key code	
erfüllt	+ / ankreuzen	nicht erfüllt	- / leer lassen	*fulfilled*	+ / tick in	*not fulfilled*	- / empty

Halterung für die Deckensysteme: Knauf D112/113 und AMF BR100-3600/
Bracket for ceiling systems: Knauf D112/113 und AMF BR100-3600

Zeichnungs-Nr./ *drawing no.:SY27-EB-3-A*

Die Konstruktionen der Tragprofile sind nahezu identisch/ *the constructions of the supporting profils are almost identical*

Knauf

Die Verbindungen Halterung-Tragprofil sind kraftschlüssig und sicher (siehe Beispiele AMF BR100-3600)/
The connections bracket-supporting profil are friction-locked and safe (see example AMF BR100-3600)

Datum	14.04.2014	*Date*
Prüfer	(Gotz)	*Tested by*

Anforderungen erfüllt	+	***Requirements fulfilled***

Bewertungsschlüssel						Key code	
erfüllt	+ / ankreuzen	nicht erfüllt	- / leer lassen	*fulfilled*	+ / tick in	*not fulfilled*	- / empty